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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,355	01/17/2002	Hai Chi Nguy	Q01-1029-US1	7101

32093 7590 05/09/2005

HANSRA PATENT SERVICES  
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BELLINGHAM, WA 98226

EXAMINER
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FIGUEROA, NATALIA

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/054,355	NGUY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Natalia Figueroa	2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,12-19,22-25 and 47-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47-52 is/are allowed.
- 6) ☒ Claim(s) 1,3,7-10,12,16-19,21,24 and 25 is/are rejected.
- 7) ☒ Claim(s) 47-52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Maddox (USPN 3,895,270).

RE claim 9, Maddox discloses demagnetizing a magnetic data disk for recording data in a disk drive (col. 3, lines 42-46), comprising (a) placing the magnetic data disk in a magnetic field at a first strength level (col. 3, line 63-col. 4, line 4);(b) gradually reducing the magnetic field to a second strength level by multiple stepwise decrements in the magnetic field (or step-by-step, col. 7, lines 1-25), to essentially eliminate net magnetization in the magnetic media (col. 4, lines 44-53).

RE claim 1, Maddox is relied upon for the same reasons of rejection as stated above.

Claim 1 has limitations similar to those treated in the above rejections, and is met by the reference as discussed above.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-8, 10, 16, 18-19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maddox in view of Tamura et al (USPN 6,570,727), hereinafter Tamura.

RE claim 10, Maddox is relied upon for the same reasons of rejection as stated above. Maddox further discloses providing electrical power to the electromagnets to generate said magnetic field at said first level (fig. 1 and col. 5, lines 4-20). Maddox fails to explicitly teach that the data disk includes opposing surfaces having magnetic medium thereon; placing an electromagnet proximate each surface of the data disk, such that at least a portion of each surface of the data disk is between the electromagnets; and rotating the data disk in relation to the electromagnets such that the magnetic field is substantially perpendicular to said surfaces of the data disk. However, Tamura discloses such opposing surfaces . . . (fig. 1), placing an electromagnet . . . (col. 3, lines 40-63) and rotating the data disk . . . (col. 4, lines 3-6). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus as disclosed by Maddox with the above teachings from Tamura in order to place an electromagnet supplied with a controlled current hence making sure that all the data in the disk has been erased.

RE claim 16, Maddox and Tamura are relied upon for the same reasons of rejection as stated above. Tamura further discloses that the magnetic field is substantially perpendicular to the surface of the magnetic media (col. 4, lines 3-6).

RE claims 7-8, Maddox and Tamura are relied upon for the same reasons of rejection as stated above. Claims 7-8 have limitations similar to those treated in the above rejections of claims 10 and 16, and are met by the references as discussed above.

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RE claim 18, apparatus claim 18 is drawn to the apparatus corresponding to the method of using same as claimed in claims 9 and 10. Therefore apparatus claim 18 corresponds to method claims 9 and 10, and is rejected for the same reasons of obviousness as used above.

RE claims 19 and 24, apparatus claims 19 and 24 are drawn to the apparatus corresponding to the method of using same as claimed in claims 10 and 16. Therefore apparatus claims 19 and 24 correspond to method claims 10 and 16, and are rejected for the same reasons of obviousness as used above.

5. Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maddox in view of Saito et al (USPN 6,747,823), hereinafter Saito.

RE claim 12, Maddox and Saito are relied upon for the same reasons of rejection as stated above. Saito further discloses that said stepwise decrements are separated by predetermined time periods (or gradual time col. 7, line 62-col. 8, line 70 and col. 9, lines 5-9).

RE claim 3, Maddox is relied upon for the same reasons of rejection as stated above. Claim 3 has limitations similar to those treated in the above rejections of claim 12 and is met by the references as discussed above.

6. Claims 17, 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maddox and Tamura and further in view of Saito.

RE claim 17, Maddox and Tamura are relied upon for the same reasons of rejection as stated above. Maddox and Tamura fail to explicitly teach that the step (a) further includes the steps of moving the electromagnets essentially radially in relation to the rotating data disk to expose recording area on the disk surfaces to said magnetic field (col. 10, lines 18-30).

However, Saito discloses such on (figs. 6a-6c and col. 10, lines 18-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus as disclosed by Maddox and Tamura with the above teachings from Saito in order to control the magnetic field hence making sure that once the disk has been completely erased it can start been recorded on.

RE claim 21, apparatus claim 21 is drawn to the apparatus corresponding to the method of using same as claimed in claims 12. Therefore apparatus claim 21 corresponds to method claim 2, and is rejected for the same reasons of obviousness as used above.

RE claim 25, apparatus claim 25 is drawn to the apparatus corresponding to the method of using same as claimed in claim 17. Therefore apparatus claim 25 corresponds to method claims 17 and is rejected for the same reasons of obviousness as used above.

***Allowable Subject Matter***

7. Claims 4-6, 13-15, 22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

RE claims 4-5, 15 and 23, the prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest that the magnitude of each decrement is based on the magnetic coercivity of the magnetic media.

RE claim 6, the prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest that the second strength level is substantially zero.

RE claim 13, the prior art of record, and in particular Maddox (USPN 3,895,270), fails to

teach or suggest that the duration of each time period is based on the speed of rotation of the data disk.

RE claims 14 and 22, the prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest that the duration of each time period is at least longer than duration of a revolution of the data disk.

8. Claims 47-52 are allowed.

9. The following is an examiner's statement of reasons for allowance:

RE claim 47, the prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest a method of demagnetizing magnetic media comprising the step of gradually reducing the magnetic field to a second strength level to essentially eliminate net magnetization in the magnetic media; wherein at least one of the first and second strength levels is based on the magnetic coercivity of the magnetic media.

RE claim 49, the prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest a method of demagnetizing a magnetic data disk comprising the step of gradually reducing the magnetic field to a second strength level to essentially eliminate net magnetization in the magnetic media; wherein at least one of the first and second strength levels is based on the magnetic coercivity of the magnetic media.

RE claim 51, the prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest an apparatus for demagnetizing magnetic media comprising a controller for selectively providing electrical power to the electromagnet to generate magnetic fields at different strength levels, wherein the controller is configured to gradually reduce electrical power to the electromagnet from a first power level to a second power level, to reduce the magnetic

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field from a first strength level to a second strength level, respectively, to essentially eliminate net magnetization in the magnetic media; wherein at least one of the first and second strength levels is based on the magnetic coercivity of the magnetic media.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Response to Arguments*

10. Applicant's arguments filed April 8, 2005 have been fully considered but they are not persuasive.

RE claims 1,9 and 18, applicant argues, "Applicants believe that Maddox does not include all of the limitations of the claims as amended." Examiner respectfully disagrees because Maddox does teach a step-by-step demagnetization. Please refer to the rejections above.

Re claims 3,12 and 21, applicant argues, "Applicants submit that Saito does not disclose that stepwise decrements are separated by predetermined time periods." Examiner respectfully disagrees because Maddox in combination with Saito disclose a step-by-step demagnetization that depends on time. Please refer to the rejections above.

Re claims 17 and 25, applicant argues, "Applicants submit that Saito makes no mention of radial movement of electromagnets in relation to a rotating disk drive for demagnetization." Examiner respectfully disagrees because Saito in figures 6a-6c show two head or magnetic components in parallel demagnetizing a disk surface. Please refer to the rejections above.



***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

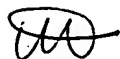
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Figueroa whose telephone number is (571) 272-7554. The examiner can normally be reached on Monday - Thursday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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